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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,402	03/29/2004	Yoji Taniguchi	1324.70198	1711

24978 7590 11/13/2007  
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EXAMINER
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BRIGGS, NATHANAEL R

ART UNIT	PAPER NUMBER
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2871

MAIL DATE	DELIVERY MODE
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11/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/812,402	TANIGUCHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nathanael R. Briggs	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/26/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments, see pages 2-3, filed 27 August 2007, with respect to the rejection(s) of claim(s) 1-5 and 10-11 under 35 USC § 103(a) have been fully considered and are persuasive, particularly in that the 102(e) reference, *Kishida*, is disqualified as 103(a) prior art because of common ownership. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of additional prior art.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-5 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (US 2003/0043336) in view of Chen et al. (US 2002/0047983).**

3. Regarding claim 1, Sasaki discloses (see Figs. 64-65; paragraphs [0128]-[0133], for example), a method for producing a liquid crystal display device comprising steps of: sealing a liquid crystal (24a) containing a polymerizable component capable of being polymerized with heat or light ([0307]) between a pair of substrates ([0306]) having been disposed as being opposed to each other; polymerizing the polymerizable component by irradiating the liquid crystal with light with a prescribed luminance at a at a prescribed

temperature for a prescribed irradiating time under application of a prescribed voltage so as to control a pretilt angle and a tilt direction of liquid crystal molecules ([0308]); and wherein the voltage or the temperature or the luminance or the irradiation time is controlled as a parameter to obtain prescribed optical characteristics (inherent in the manufacture of an LCD). However, Sasaki does not expressly disclose wherein the parameter that is controlled under feedback of a thickness of a cell or of a height of a pillar spacer formed on one of the pair of substrates before and after injecting the liquid crystal, or wherein the method includes measuring a thickness of a cell of a height of a pillar spacer on one of the pair of substrates before and/or after injecting the liquid crystal, or wherein the parameter is controlled under feedback of a *measured thickness* of the cell or a *measured height* of the pillar spacer.

4. Regarding claim 1, Chen discloses a method for producing a liquid crystal display (see figures 3-4, for instance), wherein the parameter that is controlled under feedback of a thickness of a cell or of a height of a pillar spacer formed on one of the pair of substrates before and after injecting the liquid crystal ([0029]); and wherein the method includes measuring a thickness of a cell of a height of a pillar spacer ([0014]) on one of a pair of substrates (40, 42) after injecting the liquid crystal, or wherein the parameter (temperature, luminance, and irradiation time; [0029]) is controlled under feedback of a measured thickness of the cell or a measured height of the pillar spacer ([0028]-[0029]).

5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the step of measuring a cell gap like Chen in the method of Sasaki. The motivation for doing so would have been to produce a display with uniform,

controlled cell gap, thereby yielding a uniform display, maintaining a repeatable process, and saving cost of production, as taught by Chen ([0029]-[0033]). Claim 1 is therefore unpatentable.

6. Regarding claim 2, Sasaki in view of Chen discloses the method of claim 1 (see figures 1-6, for instance), and Sasaki further discloses wherein the voltage is controlled within a range of 0.1 to 100V ([0071]). Claim 2 is therefore unpatentable.

7. Regarding claim 3, Sasaki discloses the method of claim 1 (see figures 1-6, for instance), and Sasaki further discloses wherein the temperature is controlled within a range of  $-30^{\circ}\text{C}$  to  $250^{\circ}\text{C}$  ([0071]). Claim 3 is therefore unpatentable.

8. Regarding claim 4, Sasaki discloses the method of claim 1 (see figures 1-6, for instance), and Sasaki further discloses wherein the luminance is controlled within a range of 1 mW/cm<sup>2</sup> to 10,000 mW/cm<sup>2</sup> ([0071]). Claim 4 is therefore unpatentable.

9. Regarding claim 5, Sasaki discloses the method of claim 1 (see figures 1-6, for instance), and Sasaki further discloses wherein the radiation time is controlled between 1 second and 24 hours ([0071]). Claim 5 is therefore unpatentable.

10. Regarding claim 10, Sasaki discloses the method of claim 1 (see figures 1-6, for instance), and Sasaki further discloses wherein the parameter is controlled to compensate for a luminance distribution within the panel ([0077]). Claim 10 is therefore unpatentable.

11. Regarding claim 11, Sasaki discloses the method of claim 1 (see figures 1-6, for instance), and Sasaki further discloses wherein the optical characteristics include

gamma characteristic and transmittance upon displaying black ([0293]). Claim 11 is therefore unpatentable.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathanael R. Briggs whose telephone number is (571) 272-8992. The examiner can normally be reached on 9 AM - 5:30 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathanael Briggs  
11/8/2007

*Andrew K. K. K.*  
ANDREW K. K. K.  
PATENT EXAMINER